

From: **Ex. 6 Personal Privacy (PP)**
Sent: Wednesday, May 17, 2017 12:33 PM
To: Shea, Valois
Subject: Articles on the seismic testing south of the proposed Dewey Burdock Project

Hi Valois,

Thank you again for taking the time to hear our concerns for the Dewey Burdock project on our water last week.

As you may already know, we just learned that there is probably going to be seismic testing south of the Dewey Burdock site. These articles are timely and I believe they may be critical to the future of the Dewey Burdock project as well as the old mining sites that still remain a threat to our water and the buried weapons at Igloo. Realizing there are faults in this region, we, the residents of the Black Hills, are even more concerned with this new realization that seismic testing and perhaps eventual fracking will take place on and near the former army depot site at Igloo!!!!!!!!!!!!!! God Help us!!!!!!!!!!!!

It is common for Cascade Spring to flow red as a result of previous seismic tests, heavy machines working miles away, not to mention unknown causes for this phenomena. IT IS A DELICATE ENVIRONMENT AND WHAT HAPPENS IN A GIVEN AREA HAS AN IMPACT MILES AWAY! I cannot imagine what effect these seismic tests and/or the effect of eventual fracking may have on the Dewey Burdock site even with the best attempts at confining the toxins they will be disturbing, creating and re-injecting into the earth and our water supply, which is a bad idea without the additional issues created by the seismic testing at Igloo!!!!

Please educate yourselves on the future plans for seismic testing in this hazardous area and its possible effect on the Dewey Burdock Project!!!! The results may be catastrophic! I sincerely pray that the EPA will protect us because there will be no way to clean up the possible devastation and/or to restore what we now have. Thank you!

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Ex. 6 Personal Privacy (PP)

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

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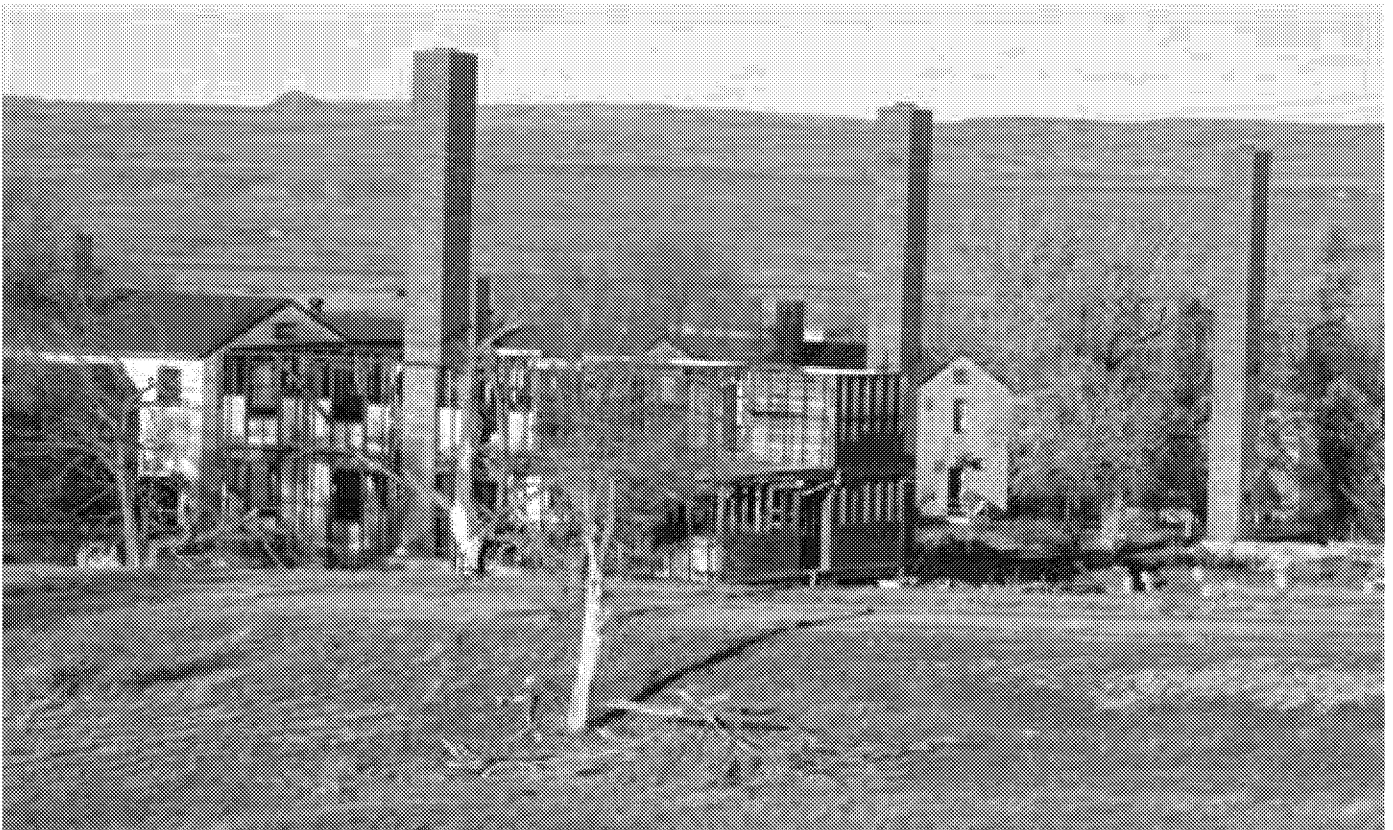
FEATURED

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and gas deposit

Black Hills Army Depot chemical weapons disposal methods could prove deadly in this effort, say residents

John D. Taylor Hot Springs Star
May 14, 2017

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This file photo shows the former housing area of the Black Hills Army Depot near of Edgemont.

Associated Press

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

John D. Taylor Hot Springs Star

HOT SPRINGS | A seismic testing company plans to start looking for underground oil and natural gas deposits on up to 46,000 acres of private and public land in southwestern Fall River County.

The area to be tested, between Provo and Edgemont at the edge of the Southern Black Hills, includes the former Black Hills Army Depot ground, which is now private land, and part of the Buffalo Gap National Grasslands acreage.

That region of southwestern South Dakota has a long history of energy production, energy waste storage and munitions stockpiling. Uranium was mined there in the 20th century, and a proposal is now under consideration to implement an in situ system to mine for uranium via thousands of small wells drilled into the earth. The area is also home to a former Army munitions depot, which some residents fear could leach chemicals or set off decommissioned weaponry if disturbed by the seismic testing.

At a meeting of the Fall River County Commission on May 2, some county residents — including one resident who lives quite near the area to be tested — were extremely concerned about what could happen if the remains of the ammunition, bombs, rockets and a wide array of chemical weapons that the Black Hills Army Depot handled during the 22 years of its existence and buried in vaults and trenches are disturbed by the testing.

Seismic testing

According to Mike McNeil of the U.S. Forest Service Hot Springs office, there will be up to 23,000 acres of private land and an equal amount of National Grasslands acreage that could be tested.

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

McNeil said a private company, employed by landowners in the area, is using seismic surveys to look for oil and gas deposits.

Seismic testing involves a large metal plate that is pushed down on top of the earth, through which high-frequency vibrations, called seismic waves, are sent. The waves are created by either a dynamite blast or a specialized air gun. The waves bounce back, or reflect, in the rock strata, and are recorded by receivers known as geophones. Oil and gas geologists can read the seismographs generated by the testing unit to determine if there are pockets of oil or natural gas below.

The bulk of the testing would take place in the Coffee Flats area, he said. However, other areas around Provo are also involved.

The company doing the testing is obligated to get permission only from private mineral rights owners (not necessarily landowners) and an internal permission from the Forest Service and the Bureau of Land Management, the federal agency that controls the mineral rights on the grassland areas to be tested, said Kelly Stover, also with the Hot Springs Forest Service office.

The conditions the Forest Service has put on the testing are:

- No seismic testing prior to Aug. 1, to protect raptors and sharp-tailed grouse, currently nesting on the grasslands.
 - Roads of all types, BLM, USFS, county and private, must be returned to their previous condition following testing. Seismic testing vehicles are especially heavy.
-

- No travel on wet roads.
- Local residents must be contacted prior to testing.

Fall River County commissioners and audience members raised a number of questions about this effort.

They wanted to know how cattle could be affected by the testing. Stover said there would be no harassment of livestock.

Questions were also asked about the specifics of where the seismic testing would be done. McNeil said it would not occur east of Provo and not on the BHAD “Burning Grounds.”

Chemical weapon worries

A more significant worry was raised by Edgemont rancher Susan Henderson and Provo rancher Cindy Brunson, who lives practically on top of the former BHAD.

“This is a disaster of massive proportion,” warned Henderson.

For 10 years, roughly from 1991-2001, Henderson served as chairwoman of the Restoration Advisory Board, a citizens advisory board that provided a liaison between the U.S. Army and local people for the potential cleanup of the Army depot site. Congress mandated a cleanup of the depot, and then-U.S. Sen. Tom Daschle recommended Henderson for the board. This project had a \$5 billion budget, Henderson told the commissioners.

The Army depot had served the nation as a munitions storage and decommissioning facility beginning in 1942.

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

Initially operated by the U.S. Army Ordnance Corps to meet a World War II increased demand for ordnance, the depot was chosen for its remoteness, with nearly all of the facility's civilian workforce living in federal housing in Igloo, once a booming community but now an abandoned town.

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The depot was also used for storing and testing chemical weapons, including some highly toxic gases. They included:

- Sarin, or GB gas, a colorless, odorless liquid used as a weapon due to its extreme potency as a nerve agent. Sarin in its purest form is estimated to be 26 times more deadly than cyanide and 543 times more lethal than the chlorine gas used during World War I. Sarin exposure causes difficulty breathing, loss of bodily functions, followed by twitching and jerking. Ultimately the victim suffocates in a series of convulsive spasms. Sarin was outlawed in 1997 by arms control treaties, but most nations that produced it retained stockpiles of the weapons used to deliver it, as witnessed by what has happened in Syria recently.

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

-
- Mustard gas (sulfur mustard) forms chemical burns on the skin, eyes and lungs. It was first used as a weapon during World War I by the Germans when it was shot over troops via artillery shells. Mustard gas was also outlawed by arms control treaties.
 - Phosgene gas also gained infamy as a chemical weapon during WWI. A suffocating gas, it was responsible for nearly 85 percent of the 100,000 deaths caused by chemical weapons in that war.
 - Lewisite, another blistering agent developed during WWI, but not used then, was known during 1920s experiments as the "Dew of Death." The U.S. produced about 20,000 tons of lewisite, using it as an antifreeze for mustard gas or to penetrate protective clothing in special circumstances. It was replaced by a mustard gas variant during the 1950s and declared obsolete.
-

- VX, short for "venomous agent X" gas, is an extremely toxic nerve gas developed for military use after pesticide research discovered the toxicity of organophosphates such as malathion and parathion. VX stays around, doing damage in environments where it is used.

- Other nerve gases were also created and handled at the Army depot during WWII, including Tabun, a German product, Toban and the very deadly Soman, which can kill in two minutes.

The Army depot was closed on June 30, 1967.

However, the citizens advisory board quickly learned that the depot had some major disposal problems for munitions.

“Igloo was designed to take in WWII weapons that were difficult to manage,” Henderson told the commissioners. Disposal was done in three basic ways: Stored in underground caverns; left in 200 miles of trenches dug at various locations around the base; or in 20-square-foot cement bunkers.

The trenches were used to bury weapons, including chemical agents in containers, bombs and rockets around the depot, Henderson said. That included M55 rockets.

A 1990s congressional study showed that thousands of the rockets were filled with chemical agents. Today, some 50 to 75 years after they were buried, a Sandia Labs study showed these rockets are destabilizing and could “auto ignite.”

Also, when the temperature of the rocket rises above 55 degrees, it can ignite. There have been multiple “blow-ups” of these rockets in other areas where the rockets were stored, Henderson said, sharing her worry that seismic testing could set off a chain reaction of rockets in trenches.

Chemical gas-filled rockets and bombs were also buried in bunkers, she said.

“There were hundreds of thousands of tons of chemical warfare agents stored or buried underground, 368,000 tons of Sarin alone,” she said, “along with GB, VX, mustard gas, terrible Nazi stuff and secret stuff that no one knows about.”

Henderson believes that the aim of the military following World War II was to tap into Wind Cave’s vast underground caverns, which recent cavern mapping shows extend for many miles, possibly even to the edges of the Army depot. The caverns, it was thought, would stay cool and make it easier to control stockpiled ordnance.

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

She also said the chemicals and gasses in the weapons are percolating down into the water table.

“I don’t know what will happen when seismic crews go shaking ground around this,” Henderson said. “This has me scared to death. Because time has passed all those who worked there are dead or gone, and people don’t remember what’s in there anymore.”

Both Henderson and Brunson talked about a sheep rancher, Georgia LaBarre, who lost 1,200 sheep on Army depot land in the early 1990s when they were grazing. They both surmised it was due to improperly disposed ordnance. Henderson said she saw some of those sheep with grass in their mouths that had convulsed so hard their backs were broken, but also that they did not bloat and flies would not land on them. Four of those animals were taken to the state veterinarian, who saw no sheep disease but suspected some horrible chemical warfare agent in their deaths, Henderson said.

“The bottom line here is that doing this (seismic testing) is insane,” Henderson said. **Seismic crews want to test up to 46,000 acres northwest of Provo for oil and**
“It’s extremely scary, it’s unconscionable.”

Brunson told of losing grazing cattle to mysterious causes on depot lands.

“We need energy,” Brunson said, “but nobody should go there (to the Army depot site). I border on the west side of the burn pit and can see across the fence, where work is being done. I’d advise these people to stay away.”

A 300-page Army Corps of Engineers commissioned report from 1992 backs up most of Henderson and Brunson’s statements.

Also, Stover said that archeological and paleontological studies are being done.

Only Forest Service approval is needed for a short-term exploration effort like this, McNeil and Stover told the commissioners. The federal Bureau of Land Management and private landowners own the underground mineral rights of the lands in the project, while the Forest Service and private landowners hold the above-ground land rights.

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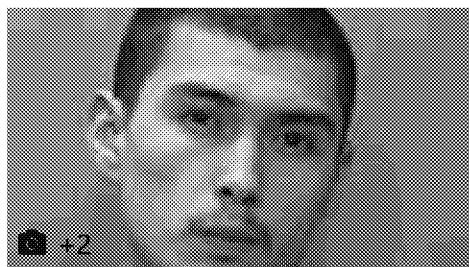
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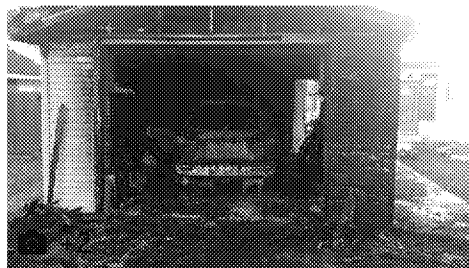
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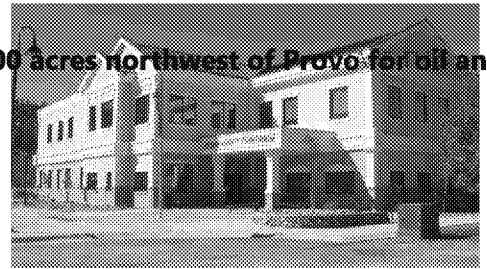
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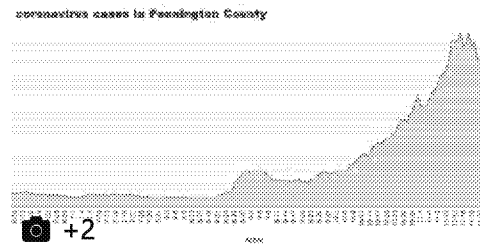
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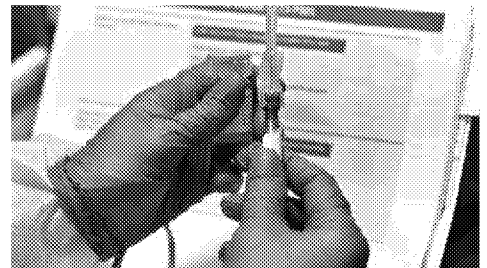
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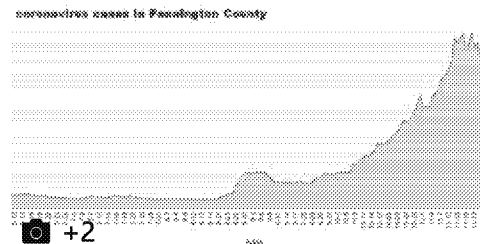
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CENTERPIECE

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and gas

By John D. Taylor
May 9, 2017

Black Hills Army Depot chemical weapons disposal methods could prove deadly in this effort, say residents

HOT SPRINGS – Fall River County commissioners learned that a seismic testing company plans to start testing for underground oil and natural gas deposits on up to 46,000 acres of private and public land in southwestern Fall River County at their Tuesday, May 2 meeting.

The area to be tested, between Provo and Edgemont, includes the former Black Hills Army Depot ground – now private land and part of the Buffalo Gap National Grasslands acreage.

Meanwhile, county residents – including one resident who lives quite near the area to be tested – are extremely concerned about what could happen if the remains of the ammunition, bombs, rockets and a wide array of chemical weapons that the Black Hills Army Depot (BAHD) handled during the 22 years of its existence and buried in both vaults and trenches are disturbed by the testing.

Seismic testing

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According to Mike McNeil, of the U. S. Forest Service's (USFS) Hot Springs office, there will be up to 23,000 acres of private land and an equal amount of National Grasslands acreage nearby tested.

McNeil said a private company, employed by landowners in the area, is using seismic surveys to look for oil and gas deposits.

Seismic testing involves a large metal plate pushed down on top of the earth, through which are sent high-frequency vibrations, called seismic waves. The waves are created by either a dynamite blast or a specialized air gun. The waves bounce back (reflect or refract) in the rock strata, and are recorded by receivers known as geophones. Oil and gas geologists can "read" the seismographs generated by the testing unit to determine if there are pockets of oil or natural gas below. Think of it as something like using a fish finder.

The bulk of the testing would take place in the Coffee Flats area, he said. However, other areas around Provo are also involved.

The company doing the testing is only obligated to get permission from private mineral rights owners (not necessarily landowners) and an internal permission from the Forest Service and the Bureau of Land Management (BLM), the federal agency that

controls the mineral rights on the grassland areas to be tested, before proceeding, said Kelly Stover, also with the Hot Springs Forest Service office.

The conditions the Forest Service has put on the testing are:

- No seismic testing prior to August 1st, to protect raptors and sharp-tailed grouse, currently nesting on the grasslands.
-

- Roads of all types – BLM, USFS, county, private – must be returned to their previous condition following test. Seismic testing vehicles are especially heavy.

- No travel on wet roads.

- People must be contacted prior to testing.

Fall River County commissioners and audience members raised a number of questions about this effort: How would cattle be handled in different landowners' pastures when seismic machines move across boundaries? Stover said there would be no harassment of cattle. What about the influence of seismic activities on pipelines? McNeil and Stover said the area being tested was largely pipeline free? Questions were also asked about the specifics of where the seismic testing would be done. McNeil said not to the east of Provo and not on the BHAD "Burning Grounds."

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Chemical weapon worries

A more significant worry was raised by Edgemont rancher Susan Henderson and Provo rancher Cindy Brunson, who lives practically on top of the former BHAD.

“This is a disaster of massive proportion,” warned Henderson.

For 10 years, 1991-2001, Henderson served as chairwoman of the Restoration Advisory Board, a citizen’s advisory board that provided a liaison between the U.S. Army and local people for the potential clean up of BAHD. Congress mandated a clean-up of BHAD, and Sen. Tom Daschele (SD, D) recommended Henderson for the board. She was elected to chair the board by its members. This project had a \$5 billion budget, Henderson told the commissioners.

BHAD served the nation as a munitions storage and decommissioning facility beginning in 1942. **Seismic crews want to test up to 46,000 acres northwest of Provo for oil and**

Initially operated by the U.S. Army Ordnance Corps to meet World War II's increased demand for ordnance, BHAD was chosen for its remoteness, with nearly all of the facility's civilian workforce living in federal housing in Igloo, once a booming community.

BHAD was also used for storing and testing chemical weapons, including some highly toxic gases. These included:

- Sarin, or GB gas is a colorless, odorless liquid, used as a weapon due to its extreme potency as a nerve agent. Sarin in its purest form is estimated to be 26 times more deadly than cyanide, and 543 times more lethal than the chlorine gas used during World War I. Sarin exposure causes difficulty breathing, loss of bodily functions, followed by twitching and jerking. Ultimately the victim suffocates in a series of convulsive spasms. Sarin was outlawed in 1997 by the by arms control treaties, but most nations that produced it retained stockpiles of the weapons used to deliver it, as witnessed by what has happened in Syria recently.

- Mustard gas (sulfur mustard) forms chemical burns on skin, eyes and lungs. It was first used as a weapon during World War I by the Germans when it was shot over Allied troops via artillery shells. Mustard gas has been used since WWI. It was also

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 - Lewisite – Another blistering agent developed during WWI, but not used then, was known during 1920s experiments as the “Dew of Death.” The U.S. produced about 20,000 tons of lewisite, using it as an antifreeze for mustard gas or to penetrate protective clothing in special circumstances. It was replaced by a mustard gas variant during the 1950s and declared obsolete.
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- Other nerve gases were also created during WWII – including Tabun a German product, Toban and very deadly Soman, which can kill in two minutes – and handled at BHAD.

BHAD was closed on June 30, 1967.

However, the citizen's advisory board quickly learned that BHAD had some major disposal method problems for munitions.

"Igloo was designed to take in WWII weapons that were difficult to manage," Henderson told the commissioners. Disposal was done in three basic ways:

- Stored in underground caverns.
- In 200 miles of trenches dug at various locations round the base.
- In 20- x 20-foot cement bunkers.

The trenches were used to bury weapons, including chemical agents in containers, bombs and rockets, around BHAD, Henderson said. This included M55 rockets.

A 1990s Congressional study showed that thousands of these rockets were filled with chemical agents. Today, some 50 -75 years after they were buried, a Sandia Labs study showed these rockets are destabilizing and could "auto ignite." Also, when the temperature of the rocket rises above 55 degrees it can ignite. There have been multiple "blow-ups" of these rockets in other areas where the rockets were stored, she told the commissioners, worrying that seismic testing could set off a chain reaction of rockets in trenches.

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Chemical warfare gas-filled rockets and bombs were also buried in bunkers, she said.

“There were hundreds of thousands of tons of chemical warfare agents stored or buried underground, 368,000 tons of Sarin alone” she said, “along with GB, VX, mustard gas, terrible Nazi stuff and secret stuff that no one knows about.”

Henderson believes that the aim of the military following World War II was to tap into Wind Cave’s vast underground caverns – recent cavern mapping shows the cave extends for many miles, possibly even to the edges of BAHD – to store volatile munitions, where these would stay cool and remain intact, less volatile, easier to control.

She also said the chemicals and gasses in the weapons are percolating down into the water table.

“I don’t know what will happen when seismic crews go shaking ground around this,” Henderson said. “This has me scared to death. Because time has passed all those who worked there are dead or gone, and people don’t remember what’s in there any more.”

Both Henderson and Brunson talked about a sheep rancher, Mrs. Georgia LaBarre, who lost 1,200 sheep on BHAD land in the early 1990s when they were grazing. They both linked this to improperly disposed of ordinance. Henderson said she saw some of these sheep, animals with grass in their mouths that had convulsed so hard their backs were broken, also they did not bloat and flies would not land on them. Four of these animals were taken to the state veterinarian who saw no sheep disease, but suspected some horrible chemical warfare agent in their deaths.

“The bottom line here is that doing this (seismic testing) is insane,” Henderson said. “It’s extremely scary, it’s unconscionable.”

Brunson agreed.

“We don’t know where this is at,” she said. “They say the depot is clean, but I’ve had expensive livestock losses, too.”

Brunson told of losing grazing cattle to mysterious causes on BHAD ground. Three veterinarians told her the same thing when she tried to have the cause of their deaths investigated – that she couldn’t afford to test for all the chemical warfare things that

might have killed her cattle.

Seismic crews want to test up to 46,000 acres northwest of Provo for oil and

“We need energy,” Brunson said, “but nobody should go there [to BHAD]. I border on west side of the burn pit [an area where munitions were disposed of by burning] and can see across the fence, where work is being done. I’d advise these people to stay away.”

A 300-page Army Corps of Engineers commissioned report from 1992 backs up most of Henderson and Brunson’s statements. Its complete contents can be found on-line at <http://rapidcityjournal.com/news/local/communities/hot-springs/> or at <https://www.nrc.gov/docs/ML1305/ML13053A145.pdf>

In response to these issues, McNeil said he has to rely on what Army Corps of Engineers (ACOE) says to him about site risks, but promised to bring up the concerns brought up by Brunson and Henderson when he discusses this with ACOE.

Also, Stover said that archeological and paleontological studies are being done.

With a short term exploration effort like this, McNeil and Stover told the commissioners, only Forest Service approval is needed. The federal Bureau of Land Management (BLM) and private landowners own the underground mineral rights of the lands in the project, while USFS and private landowners hold the above ground land rights.

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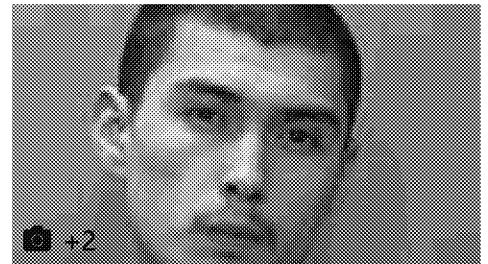
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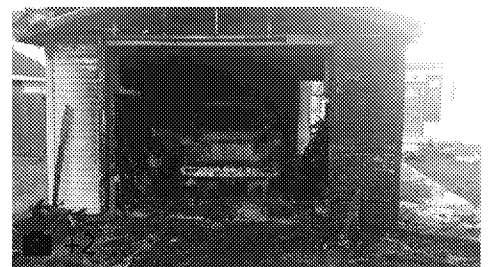
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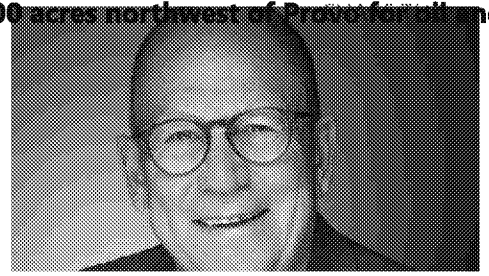
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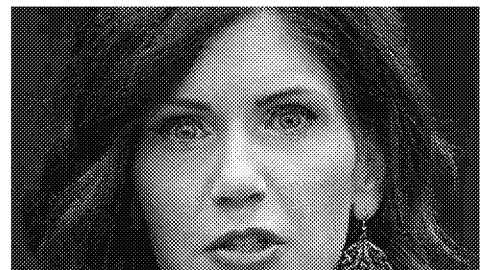


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Dewey Burdock uranium mining hearings, information session coming [SHARE THIS](#)

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Dewey Burdock uranium mining hearings, information session coming

By John D. Taylor
Apr 25, 2017

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File photo

Dewey Burdock uranium mining hearings, information session coming [SHARE THIS](#)

This is part of the Dewey Burdock area that could become an in situ uranium leach mine if EPA gives final approval to Powertech/Azarga.

By John D. Taylor

HOT SPRINGS – Mining uranium using the in situ leaching process in the Dewey Burdock area which spans northwestern Fall River and southwestern Custer counties is a controversial issue.

In March, Powertech/Azarga Uranium received notice that the U.S. Environmental Protection Agency (EPA) issued two draft permits for the Dewey Burdock Uranium Project. The permits dealt with planned Class III and Class V Underground Injection Control “activities” and addressed “all outstanding permit applications filed with the EPA for the Project,” according to Powertech/Azarga.

Powertech/Azarga calls this a “significant step towards another major federal regulatory approval for the project.”

“The Company submitted applications for these permits as early as December 2008 and receipt of these draft permits is a substantial milestone for the company, which moves the Dewey Burdock Uranium Project closer to development,” said Azarga President Blake Steele, shortly after the decision to issue the permits. “The decision of the EPA to issue these draft permits further confirms the technical merits of the Project and establishes a path forward towards receipt of the final permits,”

Below are a series of uranium mining related events taking place to keep those interested in the process informed and give people an opportunity to voice their opinions on the proposed mining project.

Dewey Burdock uranium mining hearings, information session coming SHARE THIS

Information session

The Clean Water Alliance and Hot Springs own It's All About the Water groups will host a uranium mining/EPA hearing information session on Tuesday, April 25 at 7 p.m., at the Mueller Center. Lindsey McLean, a biochemist and Rapid City businesswoman who has spoken repeatedly about the potential aquifer contamination in situ uranium mining brings with it, Dr. Hannan LaGarry, a Oglala Lakota College geology professor, whose students reviewed the log books of 7,600 existing uranium test well drillings, with driller notes, and a water specialist will be speaking at the meeting. All are welcome.

EPA hearings

EPA at a series of public hearings on the Powertech/Azarga's draft permits coming to northern Nebraska, Rapid City, Hot Springs and Edgemont during late April and May:

•Valentine, Neb. - Thursday, April 27, from 4 - 8:30 p.m. (break from 5 - 6 p.m.), at **Dewey Burdock uranium mining hearings, information session coming** ARE THIS
Niobrara Lodge, 803 US Highway 20, Valentine, Nebraska.

•Rapid City – Monday and Tuesday, May 8 and 9, 1 - 8 p.m. (break from 5 - 6 p.m.),
The Best Western Ramkota Hotel, 2111 N. LaCrosse Street, Rapid City, South Dakota
57701

•Hot Springs - Wednesday, May 10, 1 - 8 p.m. (break from 5 - 6 p.m.), at the Mueller
Center.

•Edgemont - Thursday, May 11, 1 - 8 p.m. (break from 5 - 6 p.m.), at St. James Catholic
Church, 310 3rd Avenue.

EPA's final permit decision will be based on an evaluation of comments received and a
determination of whether underground sources of drinking water are protected. More
information about the draft permits can be found at the EPA Region 8 UIC Program
website: **<https://www.epa.gov/uic/uic-epa-region-8>**. Those who cannot attend
the meetings can comment by email, fax or mail sent to: Valois Shea
(shea.valois@epa.gov); Fax: 303-312-6741, U.S. EPA Region 8 Mail Code: 8WP-SUI,
1595 Wynkoop Street, Denver, CO 80202-1129.

For more information on this, visit **<https://www.epa.gov/uic/underground-injection-control-epa-region-8-co-mt-nd-sd-ut-and-wy>**.

Dewey Burdock uranium mining hearings, information session coming

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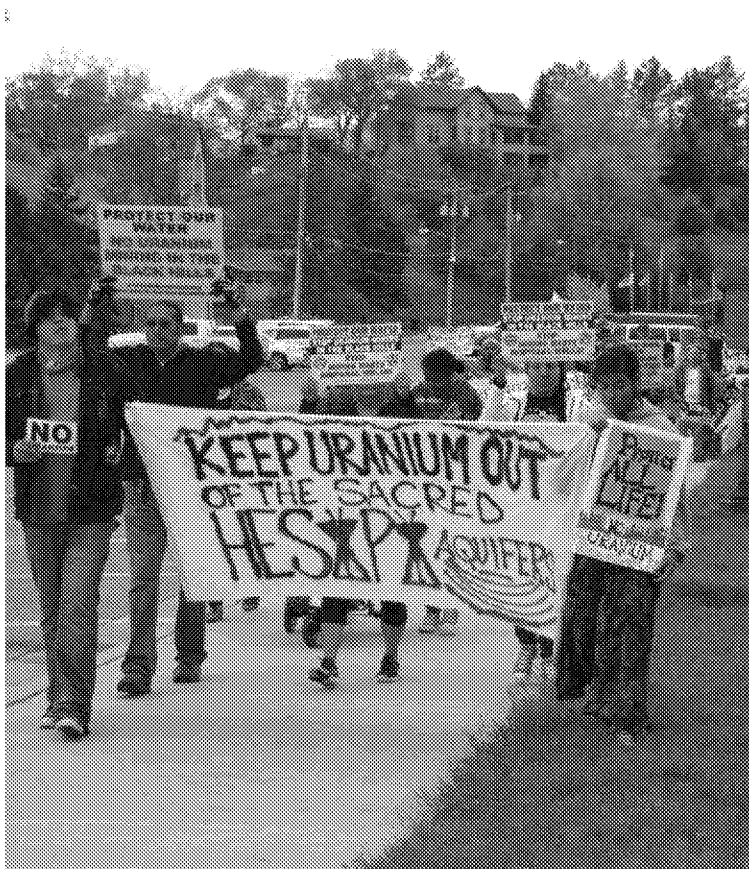
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CENTERPIECE

EPA uranium hearings: A tale of two cities

By John D. Taylor
May 16, 2017

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Anti-uranium mining protestors leave Centennial Park in Hot Springs on their way towards the Mueller Center, where the EPA held the fourth of five hearings on Azaraga/Powertech's proposed Dewey Burdock plans.

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John D. Taylor/Hot Springs Star

By John D. Taylor

HOT SPRINGS – On a gray Wednesday when a little mni wichoni (Lakota for life-giving water) was falling from the skies, a group of about 40 protesters marched from Centennial Park to the Mueller Center shouting “Mni Wichoni, water is life,” and “No uranium mining in the Black Hills,” along the way.

The protesters – including Sarah Peterson and Mary Helen Pederson, from the local group, It's All About the Water, as well as a contingent of Oglala Lakota elders, children and adults from Pine Ridge, Rapid City and other locations, along with a veterans group, all part of the Clean Water Alliance of the Black Hills – were concerned about the threats they believe Azaraga Uranium/Powertech's plans for the Dewey Burdock in situ leaching uranium mining project will bring to the area, particularly the dry region's water resources.

After praying, the contingent descended on the Mueller Center to share their concerns about the project with the Environmental Protection Agency (EPA), at the fourth of five scheduled public hearings EPA would hold on the company's plans and the two draft permits the agency has issued to Azarga/Powertech, along with the Clean Water Act exemption the one permit will require.

The issue

Azaraga/Powertech wants to receive two final permits from EPA that would be another step forward for the company to begin its Dewey Burdock project:

• One permit would be a Class III Underground Injection Control (UIC) permit. This would allow Azarga/Powertech to drill some 4,000 injection wells that would be used to mine the uranium the company says is in Dewey Burdock. In situ mining involves injecting a solution of groundwater mixed with extra oxygen and carbon dioxide into uranium deposits. This dissolves uranium in the rock underground. The slurry is then pumped back up to the surface, the uranium removed, then “recycled” by sending it back into the ground to dissolve more uranium again and again and again.

• The second permit would be a Class V UIC permit for four deep injection wells that will be used to dispose of waste fluids from the in situ process. These fluids would be pumped into the Minneluse aquifer formation after treatment to meet radioactive and hazardous waste standards.

• In order to do the Class III permit, EPA proposes an aquifer exemption from the Clean Water Act for the Inyan Kara group of aquifers.

The protesters were not alone in their concerns.

Three city council members and a number of local citizens spoke against the project, while only two were for it during the 2 p.m. – 5 p.m. period.

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Those speaking against the project included:

- Dr. Peter and Cathy Sotherland, who lived in Edgemont during the 1980s, said contamination of the Minnelusa aquifer and the economic viability of nuclear fission—especially since two Toshiba southern U.S. power plants had been shut down due to cost overruns—negated uranium in their mind. They also pointed to Three Mile Island, the Fukushima disaster, the price of solar and wind renewable energy dropping, while the price of uranium remains unprofitable to mine as reasons against the project. Peter said that what Azarga/Powertech wants to put in disposal wells was “deleterious to life.” He noted how Powertech’s Mark Hollenbeck said he would drink this waste product because it was treated, and recalled a college friend who volunteered to drink the treated water from a sewage plant, but ended up in hospital with his stomach pumped, lots of antibiotics to combat problems. Cathy talked about how the remnants of previous mines from the 1950s-70s need to be cleaned up, still jeopardize the water supply. She recalled tailings plumes blowing into town, and called the state and EPA, who told them South Dakota’s lax environmental policies negated doing anything.

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- Rancher John Sides of the Fall River County Conservation District said the district was “strongly opposed to injection wells.” The district board is obligated to protect the land, air and water quality, so they offered a resolution against the project. “These wells could have devastating effect on livestock and the economy,” Sides said, noting that 125 wells that support people and livestock get their water from on aquifers Azarga/Powertech wants to use. “It would turn communities into ghost towns and ranches into wastelands,” he said.
 - Kara Hagen, Christa Spillane and Georgia Holmes, speaking for the city spoke out against the proposal. They reiterated the city’s recent resolution to protect water, which was signed by seven of eight aldermen. Holmes also called the project impractical and extremely dangerous, talking about how the city, the county, the company and the EPA don’t have enough money to do a clean up if things go wrong, and concerns about the faults involved in the geology of the region.
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- Paul Wheeler, an amateur geologist, who said he spent the last 30 years roaming the Black Hills, talked about a large number of faults in the Dewey Burdock area (one 5.5 mile-long fault is very close to the site) and the Black Hills in general. Azarga/Powetech’s plans would be “extremely dangerous” due to the faults that could affect where the injection wells will pump waste. Waste pumped into the folded Inyan

Kara, could connect with other aquifers. Before a breach of the aquifer could be detected, he said, the waste could reach other unintended aquifers. “This is ridiculous and irresponsible,” he said.

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- Gardner Gray of Pringle pointed out how there is no market for uranium; how Platinum Partners’s (a major Azarga investor) ethics misdeeds resulting in a number of high-ranking company officials arrested, and how he believes Azarga/Powertech plans to use the wells for toxic waste disposal rather than uranium mining. “You cannot deny the threats (to water),” he told the EPA, “the permit would allows this, and profit demands it.”

- Robert Lafferty of Pine Ridge wanted to know who really owns Azarga Uranium/Powertech, the Chinese, the Canadian base, the Denver office. He worried about about sulfates, radium and other issues.

- Ed Harvey, of Hot Springs, pointed out how all of the aquifer the project intends to use are used for drinking water for people and livestock, which should negate the project under the Safe Drinking Water Act. Harvey also lamented how the 7,500 previous bore holes remain unsealed, how flow data is inconsistent, how driller notes show the potential for waste entering cave systems – including Wind Cave and Jewel Cave, a National Park and Monument. “There is no need for this,” he said. “Is the

waste contained, it's not guaranteed? Will EPA be responsible for the damage? Test wells? Bond for water? Karma will play a hand, when ag products grown here will be on supermarket shelves.”

- Patricia Shirey, a Hot Springs resident, and 2011-12 state legislator, said Hollenbeck is wrong about it being safe. “It has hazardous radiation, toxic waste, it harms wildlife and people,” she said. “You can’t return the water to baseline if it is used for waste. Uranium mining is not safe. Only a small number of short term jobs created by this.”
- Marlene Aktar talked about how, 15 years ago, her home’s 640 foot-deep well as state-tested, and she was told it was some of the best water around. “We all live on this big blue marble. Those for uranium mining are for the money, those against are for the future,” she said.
- Edgemont rancher Susan Henderson, talked about the 200 open pit mines holes remaining from previous Dewey Burdock uranium mining, how toxic chemicals drain into Pass Creek, Beaver Creek, the Cheyenne River, Angostura Reservoir and on downstream. “These arsenic-laden holes are a mile across, and 90 feet deep, and kills any wildlife that gets into it,” she said. “This is a disaster waiting to happen,” noting fissures, 2,500 currently used wells being affected, including her own Inyan Kara aquifer well. “Without wells, there is no ranching,” she said. “And you don’t get another chance for fix things, there’s no going back if mistakes are made. With 7,600

bore holes, the geology of the areas looks like swiss cheese. This will destroy ranches and farms. 60 percent of all tax money in county comes from ag. It will make a mess of tourism. I can find Washington.”

• Uriah Luallin and Rajni Lehrman of Hot Springs spoke of grave concerns about their Minnelusa well. “We’ve already suffered at the hands of foreign corporations that left cleanup to taxpayer,” Luallin said. “I’m asking the application be denied.” Lehrman said she came here for the beauty, peace and contentment of the clean air and water in the region, it was their retirement place, with a pure well that enabled she and Uriah to grow organic vegetables on their 2-acre lot. Would EPA or Azarga/Powertech provide drinking water? Reimburse the city for economic losses? Protect public access to clean water? No permit should be issued.

Meanwhile, only two people spoke in favor of the project in Hot Springs between 1 p.m. and 5 p.m: Mark Hollenbeck, of Powertech, and County Commissioner Paul Nabholz.

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- Hollenbeck, the principle local driver of the project, talked about his long family history in Edgemont, how he raises organic cattle on his ranch there. What drew him to the project, he said, was looking at the footprint of all of the energy resources and concluding that nuclear power had the gentlest footprint on the land. He learned as a rancher that having a light footprint was critical to sustainability. His training as a chemical engineer also tells him that the science on this project is correct, it will be safe and offer the community economic benefits. Other power sources, such as solar, rely on things like rare earth from China, for solar panels; or coal which results in strip mines and more carbon and ash waste. He pointed to many detractor misconceptions about the project, saying it isn't at all like fracking, water use will be less than 8,000 gallons per minute thanks to recycling of water used, and water quality of the Minnelusa on the east side of the Black Hills is good, but in Edgemont, its oil and salt. Hollenbeck volunteered to talk to people about the project to clear up misconceptions.

- Nabholz said he supported the project for basically the same reasons. He said his 580 foot deep Inyan Kara well would remain safe and he would drink from it. Waste disposal underground would be cleaner than using a center pivot irrigation system to apply it above ground – the only other approved disposal method.

EDGEMONT

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Of these 25, seven speakers – all of them Edgemont residents – said they supported the project and trusted the people who were behind it. According to one audience member who had been listening to the hearings since their beginning, at 1 p.m., more “positive” comments were shared earlier in the day, during the 2 – 5 p.m. comment period.

The remaining 18 speakers were against the proposed in situ mining effort, citing potential issues with water quality and contamination issues, waste disposal problems, the long and sorted history of uranium mining in Edgemont, problems with the Crawford, Neb. Crow Butte uranium mine, and how the Black Hills, by U.S. treaty, still belongs to the Lakota Oyate (nation).

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Those for the project said they believe in the science Azarga/Powertech has offered as evidence the project is safe and would offer Edgemont some economic growth.

- Three ranchers supported the project: John Putnam, whose land is smack-dab in the middle of the project voiced support. Putnam’s great grandfather began the family legacy there 120 years ago, he said, and his is one of the two families who live directly in the mine area. “I depend on good water to ranch,” Putnam said, “and if anyone is at risk, it’s us. I rule on the side of science, not emotion.” Putnam also offered a letter of support for the project from Argentine Township. Miles Engelbert, a young Dewey Road rancher – he graduated from Edgemont High School in 2015 –said he was comfortable with proceeding and chided those who might share in the economic benefits of the project, people from Rapid City, Nemo and Hot Springs for having little at risk, yet wanting to stop the project. He hoped the project would be quickly approved. Also, 83-year-old Kenneth Barker, he’d been branding cattle earlier in the day, felt compelled to speak. “If it wasn’t for uranium, I wouldn’t be here,” he said. “Don’t let emotional propaganda overpower reason.” He also owns land at Crow Butte, and claimed everything was “okay” there.

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 - Two Edgemont teachers also said they supported the project: Linda Tidball, a 25-year resident who married into a fifth generation Edgemont family, said she wouldn’t want to do anything to contaminate the water, and that she enjoys the natural resources surrounding her. But after reviewing the company’s information, she believes the projects engineers have sound science. Tidball also nixed a notion that supporters were paid by Azarga/Powertech to do so, all were volunteers, she said. Also, Carol Harding, a 43-year city resident and teacher, said she would never advocate for something that put her children or grandchildren at risk, but supports the project because she knows the people involved and she trusts their judgment. Harding was equally against some racial epithets hurled at the Lakota people, most protesters, outside the church.
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- Three Hot Springs women were among those who spoke against the project: Mary Helen Pederson, talked about living in Edgemont 61 years ago, when she was a child, and how something simply didn't feel right there, due to the uranium. She told of uranium's dangers – how the women who waited glow-in-the-dark dials on World War II watches died from uranium poisoning in the paint – and claimed Mark Hollenbeck, of Powertech, lives on the project so it can't become an EPA Superfund site (the result of previous uranium mining). “EPA,” she said, “Do your job. Protect the land from being raped by corporations.” Sarah Peterson talked about how the EPA itself says waste water contaminated by uranium mining will never be “returned to baseline” levels, so how can it be cleaned enough to be put into an aquifer? “I’m scared,” she said, noting how Crow Butte uranium mine, south of Edgemont had a 125 million gallon “spill” due to a pinhole in a pipeline between extraction wells that went undetected by monitoring wells. Also, Eileen Olleger, of Hot Springs, a former teacher, talked about how in New Jersey, where she lived before moving to west, pollution was rampant, and big corporations and greed ruined the land. She lauded Edgemont's natural beauty and its people, then asked why anyone would consider turning the area into a toxic dump site.

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- Kathleen Jarvis, a former Custer State Park controller, now living in Hermosa offered some very scary arguments against the project: Citing U.S. Army Corps of Engineer (ACOE) reports and other documentation, she noted how artesian wells indicate that there is connectivity between aquifers and that removing uranium from rock formations could allow higher elevation waters to seep into lower elevation, then return with toxic chemicals when water pressure returns. She also cited radionucleitide tainted water quality concerns, where EPA allows 15 milligram per milliliter of radionucleaitides, where 17 mg/ml are now showing in Edgemont. Jarvis also worried that the thousands of tons of munitions disposed of at the former Black Hills Army Depot during the 1950s – 1980s – this included chemical warfare agents like sarin, mustard gas, phosgene, nerve gas and others; along with the remains of disassembled standard munitions – are currently leaching Beaver Creek, then the Cheyenne River and flowing east into the Missouri River. Couple this with in situ mining waste and there enormous problems.

- Kathleen Bailey talked about how low level radiation can be just as dangerous and higher doses over time. “The result is health effects – cancer,” she said, citing an example where municipal low level wastewater radioactivity resulted in five cancer deaths among employees in the treatment plant within six years.

• Several children offered their stance against the project: Rowan, Hesla, Tammanock and Sequoia sang a Lakota prayer song about mni wichoni, how water is alive, how many in nature are fighting against uranium mining. Isaiah Cox said he believed people could save the earth if they saw it as a painted circle. Each time uranium is taken out, a part of the circle is filled with black, and imagine how less beautiful Earth is all black. “Why ruin a sweet and beautiful place for money? Money is not everything,” he said.

• Alec Good King Elk asked the EPA to use common sense, and consider the pros and cons. “How long does money last,” he said. “You get it, then you spend it and it’s gone. If you destroy land, you can’t make more. Use common sense and don’t be the person who messes things up for everyone else.”

• Tishan Sapowin (Black Shawl Woman), who lives along Cheyenne River, on the Cheyenne River Sioux Reservation talked about how she and her family are downstream from Dewey Burdock. She said the whole project was illegal, because the Black Hills belong to the Lakota under recognized treaty rights, and that the only thing people for the project can come up with for it is money. Pointing to how the Crow Butte uranium mines have left a mess and contaminated everything, she said, “It’s ignorance and greed, racism at its finest. EPA has the power to grant or deny this, and

it's racism and genocide all over again. Do something right. Can you go home and look your children in the eye after granting this and know you did something right? Please don't poison me, my son, the kids who had the courage to sing a song for you tonight."

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- Other Lakota people present agreed. Earl Hall talked about how water is more precious than gold, uranium, anything because it is fundamental to all life. "The Black Hills is not for sale," he concluded.
 - Don Hall pointed out how Supreme Court cases have verified that federal law sets aside Indian reservation water rights, quality water, "water sufficient to fulfill the purpose of the reservation." This he told EPA, was part of their job to protect and defend water quality rights.
 - Tonia Stands, of Oglala, said Crow Butte's uranium problems were leaking into the White River, which runs through the Oglala Sioux Reservation, and shared how her Lakota family was prevented from praying, hunting, fishing and traveling on land they should rightfully call theirs under treaties. Stands said at a Nuclear Regulatory Commission hearing it was brought out that Crow Butte had no monitoring system, except melting snow above problem areas. Stands also said that all of nature was speaking to the Lakota about opposing the project, to fulfill prophecies.
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Edgemont

By John D. Taylor
May 16, 2017

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Sophia Black Cloud, of Hot Springs, shows the EPA and the audience gathered for uranium hearings in Edgemont a turtle found outside St. James Church. She said it had a deformed head, which she claimed was the result of Edgemont's uranium mining.

John D. Taylor/Hot Springs Star

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South Dakota oil reserves remain 'under-explored'

Associated Press

Oct 17, 2011

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MITCHELL -- Shortly after prospectors found gold in South Dakota's Black Hills in 1874, miners, settlers and investors flooded in. It's been a storied industry with dramatic ups and downs, but gold mining continues to this day in the Black Hills.

South Dakota's oil and gas industry has endured a markedly different story, what one industry expert calls "a comedy of errors." While oil has been steadily coming out of the ground in the state's northwest corner since the 1950s, one word comes up over and over when discussing South Dakota's oil and gas with industry insiders: "under-explored."

"We have a geologically enticing area that needs to be explored," said South Dakota School and Public Lands Commissioner Jarrod Johnson. "We have oil in South Dakota, without a doubt. We are under-explored. It's just a matter of getting the seismic information."

But launching an oil or natural gas industry requires putting together a delicate formula of geology, knowledge of that geology and enough money to exploit that knowledge. South Dakota is moving forward, with the New Horizons in Oil and Gas

conference wrapping up today at the South Dakota School of Mines and Technology in Rapid City.

At the conference, South Dakota's Geological Survey office promoted its ongoing work to compile data useful to oil and gas developers and put that information online. Work to put South Dakota's oil and gas records online began at the behest of former Gov. Mike Rounds after he took office in 2003.

The records being rounded up date as far back as just after World War II.

"After World War II, the major companies like Shell, Philips, Gulf, Mobil, Marathon - they were all here," said geologist Tony Petres, managing partner for the Inyan Kara Group in Rapid City. "During that first wave of exploration, oil was found all over West River South Dakota, extending to those first counties East River."

In 1950, both Dakotas were "a zero" in the oil industry, with no oil wells in the two states, Petres said.

"In 1951, they drilled a well by Minot (N.D.) - the 'Clarence Iverson No. 1' was the well's name. That was the discovery well for the Williston Basin," Petres said.

In 1954, Shell found oil in South Dakota's Harding County. By then, though, the momentum had moved north to the proven reserves in North Dakota, which is home to the Bakken formation. The U.S. Geological Survey estimates the Bakken contains

more than 3 billion barrels of recoverable oil.

"Everybody was pouring their money into North Dakota. It was a sequence of events that left South Dakota in the dark," Petres said.

"Wild-cat" exploration continued in South Dakota throughout the 1950s, with test wells being drilled in various parts of the state. Many of those test holes showed oil and gas, those in the industry say. But the technology of the day was not able to easily get the resources out of the ground and into the marketplace.

"Pretty much all of them found oil, all across the western two-thirds of the state," Petres said.

"But it wasn't oil that flowed to the surface, so they didn't give it much consideration."

For example, there was a rock core sample drilled in Meade County in 1957 that was "completely saturated with oil," Petres said. But at the time, the oil was deemed too heavy to be usable.

Geologist and oil developer Dudley Bolyard noted in a recent keynote speech at the SDSM&T conference that the Meade County well was abandoned Dec. 22, 1957. He called it the "Gotta get home for Christmas" well.

"A lot of people would say they were just too anxious to leave it," Bolyard said. "It's an important show. We have more exploring that we need to do."

Bolyard noted that the Meade County hole was drilled just two years after the technique of hydraulic fracturing, or "fracking," was invented.

"They probably had no idea they could have fracked that well and made it a producer," Bolyard said.

When oil was discovered on Alaska's North Slope in the 1960s, oil investors simply had no interest in paying to explore in South Dakota, Petres said.

"Shell and Gulf pulled out of here, along with the others," he said.

A second, smaller wave of exploration in the late 1970s and 1980s led to oil production in Fall River County, South Dakota's most southwestern county.

If the exploration of the past didn't produce the kind of oil and gas industry enjoyed by neighboring states of North Dakota and Wyoming, it did leave behind the records of the test holes and other geologic and seismic data.

It's a lot of contour lines on maps and charts with the same kind of erratic lines one would see on a heart monitor. There is no "X" to mark the spot of the treasure, but it's all enticing enough to oil and gas developers that many believe South Dakota is on the verge of another big wave of oil exploration - and possibly a big discovery.

North Dakota's famed Bakken oil fields do not extend into South Dakota. Bakken's southern border dips enticingly close but stops at North Dakota's southern-most counties.

The Bakken formation is contained within the Williston Basin, which extends well into South Dakota. The basin covers roughly the northwest quarter of the state.

Another formation within the Williston Basin - the Three Forks - does extend south into South Dakota. And there are myriad other geologic formations mentioned by oil and gas folks.

"Geologically, what we have under our state is not the same as what North Dakota has - not as favorable for oil production," said Derric Iles, South Dakota's state geologist. "Yet we have a rock unit called the Englewood Limestone. Directly underneath the Bakken is a unit called the Three Forks, and they are also producing oil from the Three Forks. That rock unit does come into South Dakota."

Iles believes it's likely that the natural gas that has long lit the flaming fountain at Capitol Lake in Pierre comes from the Williston Basin.

The gas comes directly from a formation called the Dakota Sandstone and is noted on a 1941 map as the "Pierre Gas Fields."

"I don't think it's the Dakota Sandstone that's producing the gas. That's just where it has migrated to," Iles said.

"In all likelihood, it's coming from deeper sediments from the northwest and west. There's a large area where we have documented shows of gas in water wells. It's there, and over a very large area."

During the first decades of the 1900s, the city of Pierre lit its street lights and heated homes using that natural gas. Recently, there has been exploration in Stanley County looking for natural gas.

"That gas is still there," Iles said.

While Iles says South Dakota will never match North Dakota for oil production, he believes the state has untapped potential.

"It's unreasonable to expect all of the oil and gas resources stop at the state line," he said. "We are under-explored."

As he looks for potential opportunities, Bolyard told the SDSM&T crowd that areas along the Cheyenne River are "obvious places to run a seismograph across," because they have the geology that's likely to lead to a natural gas discovery.

"These features have not really been explored," he said.

South Dakota's next oil-and-gas wave seems to already be swelling.

Recently, Bedrock Oil and Gas of Texas bid more than \$500,000 at a state auction to lease nearly 67,000 acres for oil and gas exploration - mostly in Harding and Butte counties.

School and Public Lands Commissioner Johnson said he believes the company is "looking for the next big thing."

"It just makes sense that they are getting the land together to do seismic evaluation and to explore," Johnson said.

Last year, the city of Faith, in Meade County, went looking for water and hit oil. Work to evaluate whether that strike will turn into a producing well remains ongoing.

Earlier this year, plans to drill oil near Bear Butte, also in Meade County, sparked controversy among many American Indian groups that consider the landmark sacred. The uproar led the state to impose stricter guidelines on oil developers, but the drilling has proceeded.

Other than that, oil and gas developers appear to face no organized opposition from environmentalists, including Pete Carrols of South Dakota's Sierra Club.

"As far as South Dakota developing our oil, I'm not opposed to it," he said. "Compared to tar sands oil (in Canada), North and South Dakota's oil and gas is a superior alternative."

Perhaps the most important event for South Dakota's oil and gas industry is the painstaking work being done quietly by the state's geological survey office.

"This is a critical step that must occur before we can go much further with any of the science," said state geologist Iles.

"I have reassigned the majority of my staff at the geological survey to work on data compilation and the scanning process."

The project is designed to spur economic development by putting as much information into the hands of developers as possible, Iles said.

"We want to make it as easy as possible to have the industry decide that South Dakota is a good place to invest," he said, calling the project "a full-tilt effort."

The records include databases, detailed maps, geographic logs, scanned oil and gas permits from decades ago and more. Once completed, the website will be feature-rich, offering pop-up labels of well names, permit numbers and other information.

Already, some information is available at <http://denr.sd.gov/des/og/oghome.aspx>. Iles hopes to have the site substantially completed by year's end.

"We are pushing extremely hard to have something significant by January," he said.

Ultimately, South Dakota's future in oil and gas production will be up to investors more so than geologists. Those who can pay to explore decide when and where to drill.

"The more you drill, the more you find. The more you find, the more investment for more drilling follows. It's a self-perpetuating process," Iles said.

"When additional exploration and proper testing occurs, we will see an expansion of oil and or gas production. That's easy for me to say. I'm not laying out \$2 million to \$3 million for wild-catting."

Petres looks to a neighboring state to explain just how much of South Dakota remains unexplored. "There are counties in Wyoming that have more wells drilled in them than the entire state of South Dakota," he said.

And Bolyard calls those test wells "just pin-points of knowledge in vast ignorance."

So developers looking at South Dakota have those pin-points, all of the maps, records of decades past and the promise of a slick website. They have that and the weather-worn optimism of men like Petres who have studied the geology, the industry and the investors who pay the way.

"The oil they found is still here," Petres says of the 1950s-era exploration.

"It's just waiting for somebody to come in and make the investment. And it's been a long wait."

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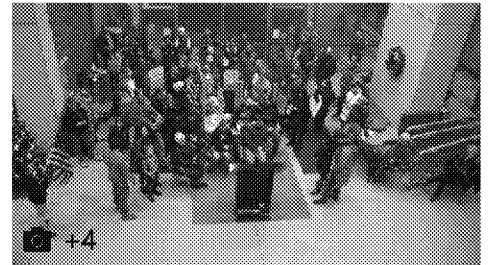
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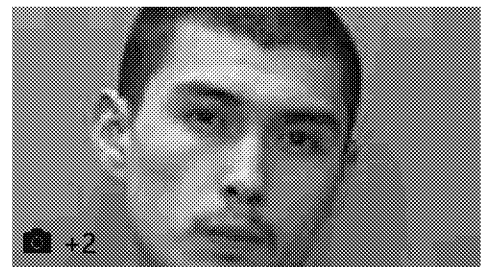
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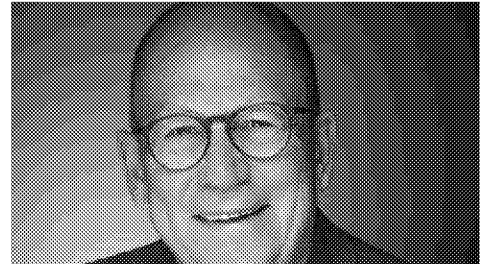
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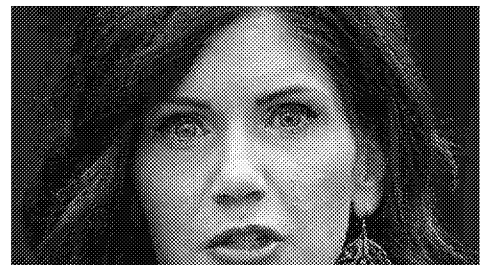


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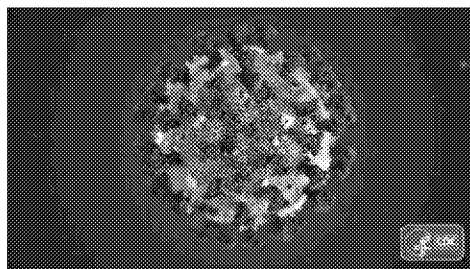
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Plan for old Black Hills depot worries some residents

Associated Press

Jun 29, 2016

Associated Press

I GLOO | The U.S. Army Corps of Engineers is installing barbed-wire fence to close off part of a defunct military depot near Edgemont, but some area residents say the move will prove ineffective at stopping potential danger from lingering explosives and toxic contamination at the remote site.

The agency hopes by the end of the year to extend a fence to fully enclose a 904-acre portion of the Black Hills Army Depot, citing potential explosive hazards. The nearly two-mile fence project comes after the Corps reviewed swaths of the roughly 21,100-acre depot, dubbed "Igloo," and decided to spend about \$500,000 over 30 years on education efforts and to seal part off.

It'll be "as effective as spitting in the wind" at keeping people out, Fall River County Commissioner Michael Ortner wrote on behalf of the county board. "Hunters are well known to ignore fences," he said later.

Cindy Brunson, whose ranch includes parts of the depot, knows the spot in her fence where scrappers broke in several years ago to steal metal. In the fall, she came across a trespasser who wanted to see the old buildings, which still dot the site decades after the depot's closure in 1967.

The plan is a "waste of taxpayer's money," said Brunson, who lives at a former school in a neighborhood of abandoned wood buildings and chimneys standing in empty lots.

The depot got its nickname because of the 802 earthen igloo-like bunkers that housed the nation's arsenal near the Nebraska and Wyoming borders. The ghost town where about 5,000 base workers once lived carries the same name.

Now, Brunson puts cattle in some of the bunkers in the winter.

The Corps, charged with cleaning up formerly used defense sites, has removed buried ordnance and cleaned up contaminated land at the site for years.

The agency said in a document earlier this year that there's a risk for people, including hunters, ranchers and government employees, to come into contact with explosives within the 904-acre area of concern, which sits inside "Burning Ground 2." Those walking in the area could be hurt by munitions and explosives on the ground, if they are present.

Among the least costly options considered short of doing nothing about the hazard area, the 10,000 feet of new five-strand barbed wire fencing also includes a warning sign component.

"What do you do? If someone wants to break the law, they're going to break the law," said Taunya Howe, remedial project manager with the Army Corps, noting that officials will likely continue addressing areas around the depot.

In the document outlining the decision, the Corps said the fence would limit access to the 904 acres of public land in question, much of which is already fenced off. Officials believe, in conjunction with education efforts, it will effectively reduce hazards at a reasonable cost compared to other options.

The Corps figures it would take \$120.6 million to remove munitions and explosives from the first foot of soil in the area, while partial removal options would cost from \$35.4 million to \$94.5 million.

The sprawling land the Corps examined includes other areas where weapons were destroyed, but where the agency concluded action wasn't required.

The "Chemical Plant Area" was used from 1949 through the 1960s for the renovation and destruction of weapons including mustard agent, cyanogen chloride and phosgene bombs ranging from 100 to 1,000 pounds.

The Corps considers the chemical area uncontaminated by munitions and explosives of concern and chemical warfare materiel. The agency said chemicals of potential concern remain in the subsurface soil.

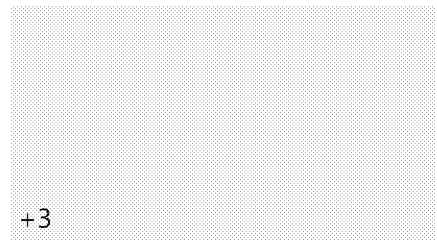
Fall River County officials are "very concerned" about potential air and water contamination, Ortnier wrote in the letter, calling at minimum for air-quality monitoring. The army should "err on the side of caution rather than doing the minimum required," he said later.

But John Tanner, a 72-year-old rancher about a mile west of the depot, dismissed the worries.

"All the damage was done while it was still a depot when they were burning their gas and all that stuff," said Tanner, who still remembers the burn and stink of the wafting mustard gas fumes. "There ain't nothing there now."

Uranium proposal: In small town of Edgemont, overwhelming support

Updated Jun 28, 2016



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Water is a precious commodity

By Uriah Luallin
Apr 25, 2017

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Guest Editorialist Uriah Luallin says this photo from Edgemont is a reminder of past uranium mining

Submitted photo by Uriah Luallin

By Uriah Luallin

Guest Editorial

Imagine for a moment that Fall River stops running. That Wind Cave or Jewell Cave floods or caves in. That historical buildings like the VA or downtown Hot Springs are severely damaged by earthquake. While these things could happen naturally the likelihood of this scenario increases with high pressure injection wells.

The libertarian approach is clearly defined in rightful liberty by Thomas Jefferson. Everyones Rights are bounded by the equal rights of those that surround us. Government is formed to protect the rights of the individual be it one, or everyone. Property usage should be held to the same standard. The difficult key is determining when usage constitutes damage to others.

While we have a tendency to trust “scientific” data that something is “safe” it has not always been reliable or encompassing enough in its scope of research. Caution should be the tenant, particularly in something that could have long range impact. The last time we had uranium mining in this county was a disaster. I point to the fact that when the tailings were discovered to be hazardous and eminently costly to mitigate the tailings were pushed into the Cheyenne river. The impact of which will be felt for many generations to

come. In the end the corporation left the carnage to the taxpayers to clean up. **Water is a precious commodity** SHARE THIS
The result was 4 million tons of radioactive material buried near Edgemont.
see photos.

While I support new invention, and economic increase, CAUTION is crucial. The use of water with components to extract radioactive material then extracting Uranium from the water needs to be failsafe. Water is not only a limited but a precious commodity of far greater value to the community than the economic value of uranium. The known repercussions of increased seismic activity causing damaging earthquakes as a result of pressurized injection wells is certainly a concern. The possible use of existing uncapped/unplugged wells as well as new wells for disposal of waste that they are not intended for is a huge concern. Corporate business, Powertech/Azarga a Chinese based company's application for a permit to drill Class 3 wells for In Situ mining by high pressure injection wells as well as disposal wells for waste in the Dewey Burdock site of Fall River County is definitely a cause for concern. This permit has no sunset and can be sold. Corporations cannot be trusted to operate in a self regulating mode because its purpose is for profit and not the respect of other private citizens rights or the conscientious good of humanity as a whole.

Take the time to research what is happening and voice your concerns now. If ^{SHARE THIS}
Water is a precious commodity
you have a well in the Minnelusa, Inyan Kara or Madison aquifer submit your concerns by writing to the EPA or speaking publicly at the hearings. Pandora's box once open cannot be contained.

Uriah Luallin is a Hot Springs resident interested in local happenings.

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